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960.01 General

This chapter provides guidance for locating and designing median crossovers.

Median crossovers are provided at selected locations on divided highways for crossing by maintenance, traffic service, emergency, and law enforcement vehicles. The use of any median crossover is restricted to the users noted above.

Crossovers may be provided:

- Where analysis demonstrates that access through interchanges or intersections is not practical
- As part of region maintenance operations
- As necessary for law-enforcement functions

For median openings to provide turning movements for public access to both sides of the roadway, see Chapter 910, Intersections At Grade.

960.02 Analysis

A list of existing median crossovers is available from the Headquarters (HQ) Access and Hearings Unit. The Statewide Master Plan for Median Crossovers can be found at:

<http://www.wsdot.wa.gov/eesc/design/access/1MasterPlanXoversHistory.pdf>.

The general categories of vehicles recognized as legitimate users of median crossovers are: law enforcement and official services vehicles, these include emergency, traffic service, and maintenance vehicles.

In both urban and rural areas, crossovers may be necessary for law enforcement operations. In urban areas with a high occupancy vehicle lane adjacent to the median, crossovers may be considered for law enforcement. See Chapter 1050.

In areas where there are three or more miles between access points, providing an unobtrusive crossover can improve emergency service or improve efficiency for traffic service and maintenance forces.

Where crossovers are justified and used for winter maintenance operations such as snow and ice removal, the recommended minimum distance from the ramp merge or diverge point should be 1,000 feet to accommodate future ramp improvements. This distance may be decreased to improve winter maintenance efficiency based on an operational analysis. Include an operational analysis in the Design Documentation Package.

960.03 Design

Utilize the following design criteria for all median crossovers, while taking into consideration the intended vehicle usage. Some of the criteria below may not apply to crossovers intended primarily for law enforcement:

- Adequate median width at the crossover location is required to allow the design vehicle to complete a U-turn maneuver without backing. Use of the shoulder area is allowed for the execution of the U-turn maneuver. The typical design vehicles for this determination are a passenger car and a single unit truck.
- Consider the type of vehicles using the median crossover.
- The minimum recommended throat width is 30 feet.
- Use grades and radii that are suitable for all authorized user vehicles. (See Chapter 920)
- Ten-foot inside shoulders are adequate for most cases. Consider full ten-foot shoulders for a distance of 450 feet upstream of the crossover area to accommodate deceleration, and extend downstream of the crossover area for a distance of 600 feet to allow acceleration prior to entering the travel lane. Where inside shoulders can be constructed wide enough

to allow vehicle deceleration and acceleration to occur off the travel lanes, documentation is not required.

- Provide adequate stopping sight distance for vehicles approaching the crossover area. Because of the unexpected maneuvers associated with these inside access points and higher operating speeds commonly experienced in the inside travel lanes, use conservative values for stopping sight distance. (See Chapter 650.)
- Provide adequate intersection sight distance at crossover locations where authorized user vehicles must encroach on the travel lanes. (See Chapter 910.)
- For the crossing, use side slopes no steeper than 10H:1V. Grade for a relatively flat and gently contoured appearance that is inconspicuous to the public.
- Consider impacts to existing drainage.
- Do not use curbs or pavement markings.
- Flexible guide posts may be provided for night reference, as shown in the Standard Plans.
- Consider the terrain and locate the crossover to minimize visibility to the public.
- Vegetation may be used to minimize visibility. Low vegetation, with a 3-foot year-round maximum height is recommended for this purpose. (See Chapter 1300).
- In locations where vegetation cannot be used to minimize visibility to the traveling public and there is a high incidence of unauthorized use; appropriate signing such as “No U-Turns” may be used to discourage unauthorized use.
- A stabilized all-weather surface is required. Urban crossovers for a high occupancy vehicle enforcement plan are usually paved. Paving at other types of crossovers may be paved when justified. Paving of crossings is determined on a case-by-case basis.

960.04 Approval

All approved crossover locations will be designated on the Statewide Master Plan for Median Crossovers. A committee consisting of the Assistant Regional Administrator for Operations or Project Development, the Washington State Patrol Assistant District Commander, the HQ Access Engineer and the FHWA Area Engineer or their designees, will be responsible for establishing and updating this plan as appropriate. Contact the Access and Hearings Unit for interim review and approvals for the following: proposed new crossings, relocation of previously approved crossings, or removal of crossings that are no longer necessary.

To expedite the team process, provide pictures of the existing crossings and the interchanges on a strip map. Include MP locations and spacing between existing and planned crossings and interchanges. The use of SR view at the team meeting helps the members determine which crossings may remain, which need to be relocated, and which to eliminate.

Regional Administrators or their designee, are responsible for the design and construction of median crossovers. Prior to construction of the opening, submit the documentation of the crossover need and the design data (together with a right of way plan showing the opening in red) to the State Design Engineer for right of way or limited access plan approval. Construction may not proceed prior to approval. (Refer to the DDP checklist.)

After notification of approval, the HQ Right of Way Plans Section sends the region a revised reproducible right of way or limited access plan which includes the approved crossover location.

960.05 Documentation

A list of documents that are to be preserved [in the Design Documentation Package (DDP) or the Project File (PF)] is on the following web site: <http://www.wsdot.wa.gov/eesc/design/projectdev/>